PR-30. SYNTHESIS OF 5-ARYLAMINO-1*H*-1,2,3-TRIAZOLE-4-SULFONYLAMIDINES

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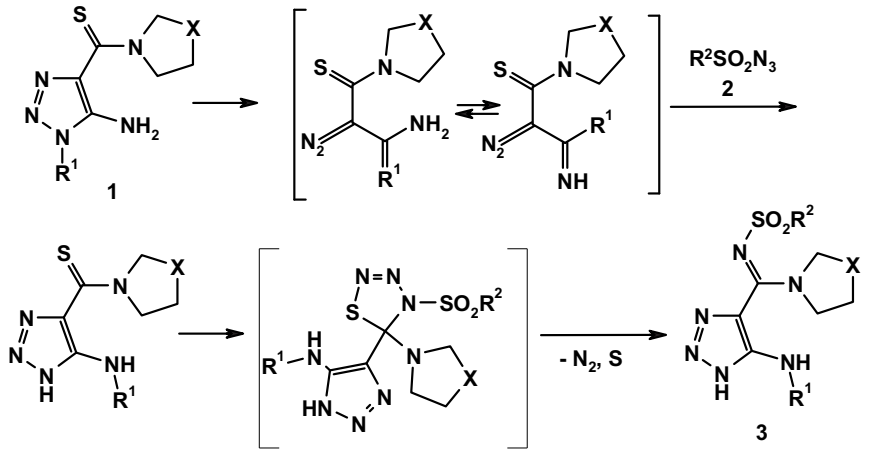
In the last decade, interest to such group of compounds as *N*-sulfonylamidines has increased. In their structure, both the amidine and sulfanilamide fragment are found. The biological activity of some sulfonylamidine derivatives, including cytotoxic, was revealed.

A convenient and environmentally friendly method for the synthesis of *N*-sulfonylamidines is based on the reaction of thioamides with sulfonyl azides [1, 2].

In the present work, the interaction of 5-amino-1-(4-nitrophenyl)-1,2,3-triazole-4-carbothioamides **1** with sulfonyl azides **2** was studied.



1 **3**

$R^1 = C_6H_4\text{-}NO_2\text{-}4$

$R^2 = C_6H_5$, $C_6H_4\text{-}CH_3\text{-}4$, $C_6H_4\text{-}F\text{-}4$, CH_3

$X = CH_2$, $(CH_2)_2$, CH_2O

It was found that 1-aryl-5-amino-1,2,3-triazoles in the reaction conditions undergo a Dimroth rearrangement resulting in 5-(4-nitrophenylamino)-1*H*-1,2,3-triazole-4-sulfonylamidines **3**.

The scope and limitations of the reaction of transformation of 5-amino-1-(4-nitrophenyl)-1,2,3-triazole-4-carbothiomides into sulfonylamidines **3** were determined. The optimal reaction conditions were found.

References

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2. Design and Synthesis of N-Sulfonylamidines of Modafinic Acid / T. Beryozkina [et al.] // Synthesis (Stuttg). Georg Thieme Verlag. 2016. Vol. 48, № 7. P. 1046–1054.